

## Data Calculation

Drug content of tablwt = 70.8 mg

Time (min)	Absorbance	Concentration (mg/ml)	Amount of drug dissolved	% Drug Dissolved
0	0	0	0	0
15	0.854	0.015	13.5	19%
30	0.987	0.0175	15.75	22.24%
45	0.995	0.0176	15.84	22.37%
60	1.354	0.024	21.6	30.5%
90	1.562	0.0276	24.84	35%
120	1.842	0.0326	29.34	41.44%

### Conclusions:

The percentage amount of acetaminophen dissolved is 22.24 % after 30 min.

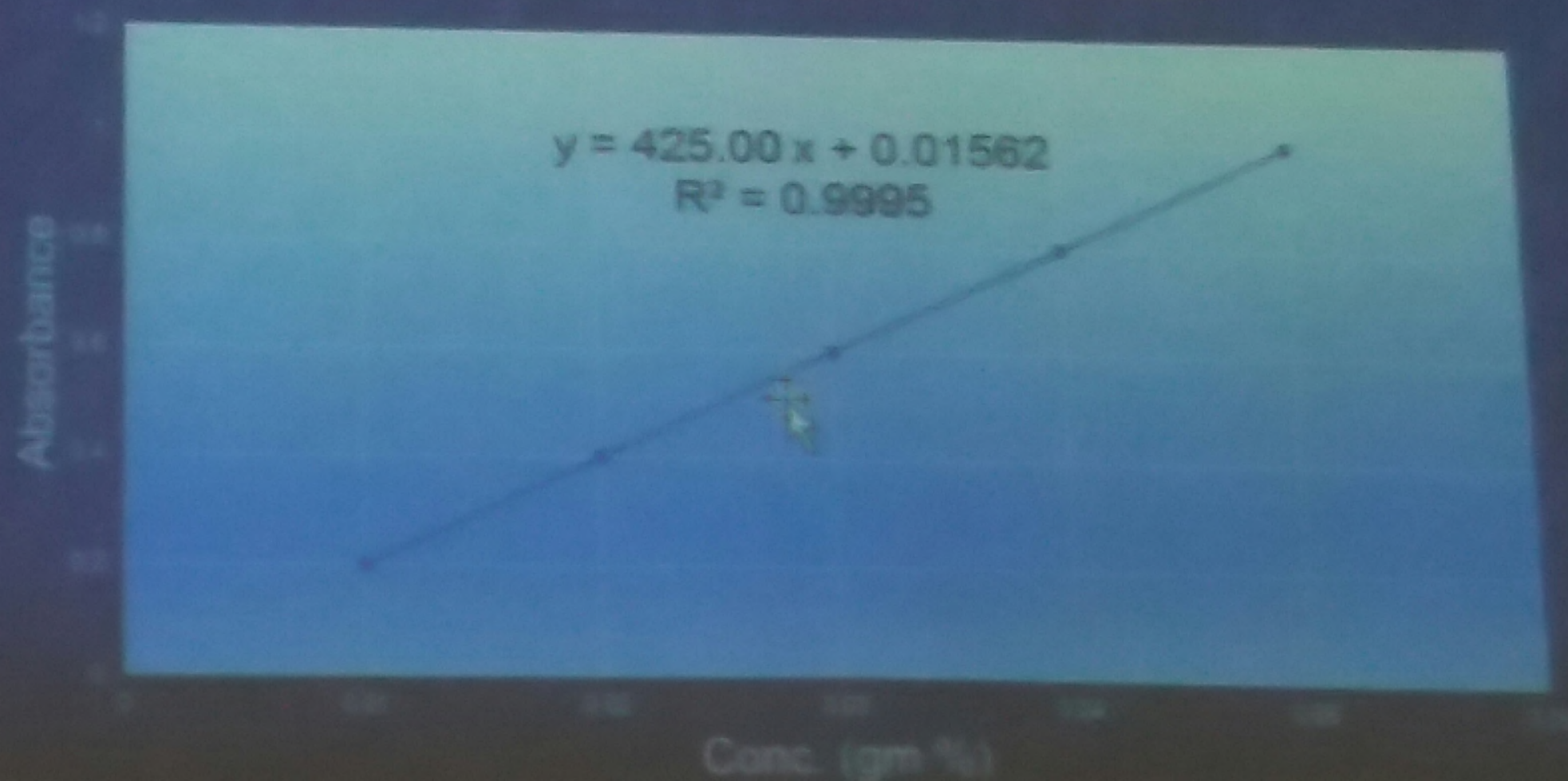
The value is less than 90% . so the tablet does not comply with the requirements of USP.



## Problem 1

- Use the following calibration curve to do find out the samples concentrations.

Calibration curve in 900 ml 0.1N HCl





## Data Calculation

Drug content= 100 mg

Time (min)	Absorbance	Concentration (mg/ml)	Amount of drug dissolved	% Drug Dissolved
0	0	0	0	0
15	1.354	0.0318	28.67	28.67
30	2.257	0.0531	47.795	47.795
45	2.687	0.063	56.9	56.9
60	2.954	0.0695	62.56	62.56
90	3.261	0.0767	69.056	69.056
120	3.753	0.088	79.48	79.48



## Conclusions:

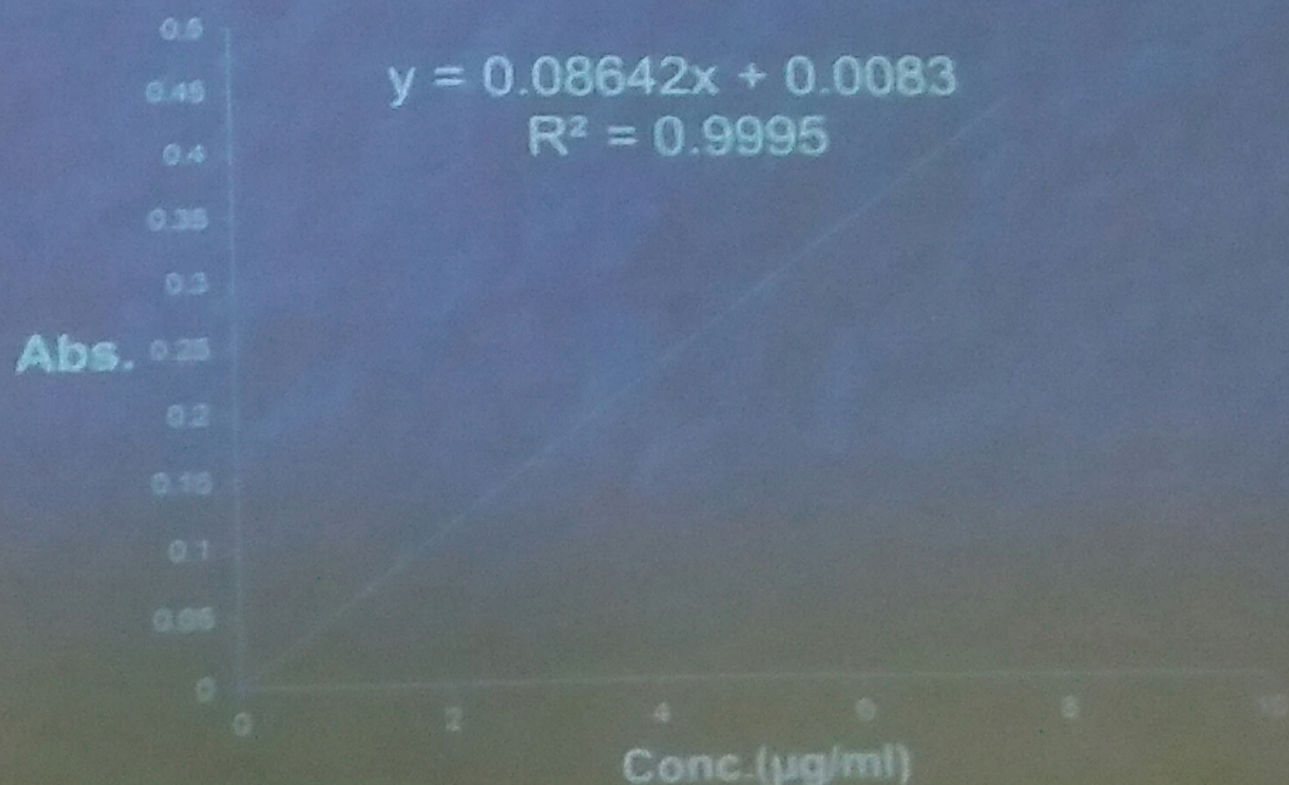
The percentage amount of drug dissolved is 47.79 % after 30 min.

The value is less than 90% , so the tablet does not comply with the requirements of USP.



### Problem 3

- Use the following calibration curve to do find out the samples concentrations.
- 1 ml of each sample was diluted to 10 ml with 0.1N HCl
- And measured at 243 nm
- Dissolution media in 500 ml 0.1N HCl
- Calibration curve in 0.1N HCl





## Data Calculation

Drug content= 500 mg

Time (min)	Absorbance	Concentration (mg/ml)	Amount of drug dissolved	% Drug Dissolved
0	0	0	0	0
15	3.5	0.405	202.5	40.5
30	4.55	0.526	263	52.6
45	5.54	0.641	320.5	64.12
60	5.98	0.692	346	69.197
90	6.8	0.787	393.5	78.69
120	8	0.925	462.5	92.57

## Conclusions:

The percentage amount of drug dissolved is 52.65 % after 30 min.

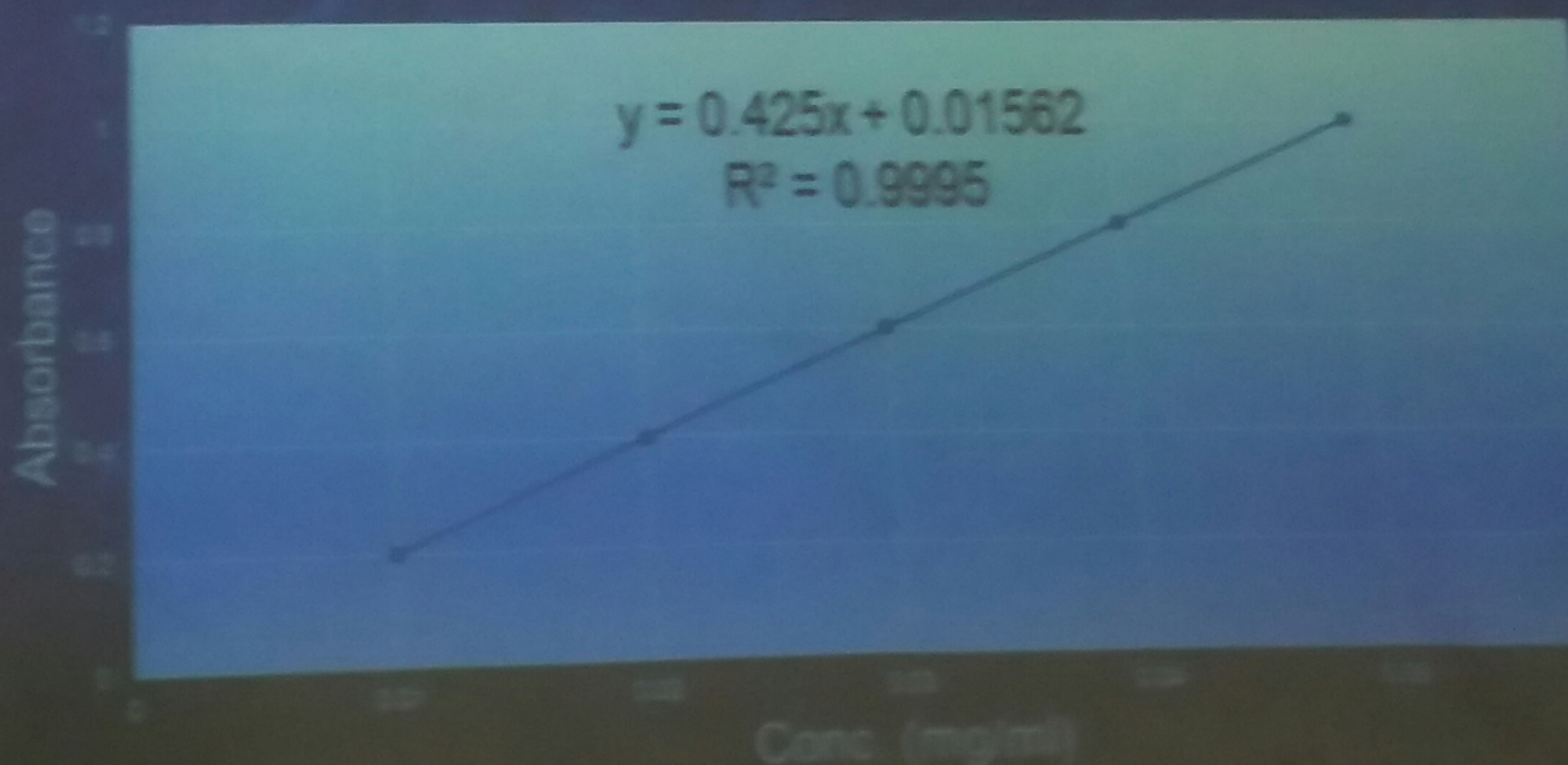
The value is less than 90% , so the tablet does not comply with the requirements of USP.



## Problem 2

- Use the following calibration curve to do find out the samples concentrations.
- And measured at 243 nm
- Dissolution medium is 900 ml

**Calibration curve in 900 ml 0.1N HCl**





**Drug content= 1000 mg**

Time (min)	Absorbance	Concentration (mg/ml)	Amount of drug dissolved	% Drug Dissolved
0	0	0	0	0
15	0.37	0.87	783	78.3
30	0.43	1.01	909	90.9
45	0.446	1.049	944.1	94.41
60	0.449	1.056	950.8	95
90	0.451	1.061	955	95.5
120	0.46	1.061	974.1	97.4



## Conclusions:

The percentage amount of drug dissolved is 90.9 % after 30 min.

The value is more than 90% , so the tablet comply with the requirements of USP.